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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,302	01/02/2002	Blaise B. Fanning	42390P12354	2163

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BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD, SEVENTH FLOOR
LOS ANGELES, CA 90025

EXAMINER

MYERS, PAUL R

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 05/28/2004

5

Please find below and/or attached an Office communication concerning this application or proceeding.

214

Office Action Summary

Application No.

10/039,302

Applicant(s)

FANNING, BLAISE B.

Examiner

Paul R. Myers

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7-30 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 7-8, 10-12, 16-17, 19-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Clark et al PN 3,725,864.

In regards to claims 1, 12: Clark et al teaches an apparatus, comprising: a point-to-point communication array (output from control units 0-m to devices 0-n Figure 1) to transfer data; and a hub device (Control units 0-m taken together), coupled with said point-to-point communication array to configure said point-to-point communication array by dedication of a communication medium of said point-to-point communication array to transfer data between an endpoint device (any of devices 0-n) and said hub device (control units 0-m) based upon device connectivity.

In regards to claims 7-8: Clark et al teaches the point-to point communication array comprising a selectable lane (channel) to transmit data between the endpoint device and the hub device.

In regards to claims 10-11, 19-20: Clark et al teaches the hub including logic coupled with the point-to-point array to select the endpoint device based upon receipt of a signal to

Art Unit: 2112

indicate device connectivity by sending a signal to switch 26 to select which device to connect to.

In regards to claim 16: Clark et al teaches determining a configuration comprising the device connectivity against the connectivity capacity of the point-to-point array (step 122).

In regards to claim 17: Clark et al teaches handling priority.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 9, 18, 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al PN 3,725,864.

In regards to claims 2, 18: Clark et al teaches the point-to-point connection array described above. Clark et al does not teach the devices being connected via connectors. MPEP 2144.04 V. C. to make separable is not patentably distinct.

In regards to claim 9: Clark et al teaches communicating between devices. This could be either master slave or peer to peer, Clark is silent on which type. Official notice is taken that peer-to-peer communication is common. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include peer-to-peer communication because this would have allowed multiple masters such as DMA controllers.

In regards to claim 25: Clark et al does not teach the hub device being on a chipset.

MPEP 2144.04 V. B. states to make integral is not patentable distinct.

In regards to claim 26: Clark et al teaches a switch (26 or alternatively channel controllers 0-m taken together).

In regards to claim 27: Clark et al teaches the point-to point communication array comprising a selectable lane (channel) to transmit data between the endpoint device and the hub device.

5. Claims 3, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al PN 3,725,864 in view of Denning et al PN 6,138,187.

In regards to claims 3, 15: Clark et al teaches the point-to-point communication array as described above. Clark et al does not teach a primary and non-primary ports. Clark does teach multiple ports one for each channel but not identifying and as primary. Denning et al teaches identifying primary and alternative channels for communicating to remote devices. It would have been obvious to a person of ordinary skill in the art to identify a primary port/channel because this would have made identifying which channel to use simple.

6. Claims 13-14, 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al PN 3,725,864 in view of Lee et al PN 5,838,937.

In regards to claims 13-14, 28-29: Clark et al teaches connecting to an endpoint device. Clark However does not teach an indication of a device connectivity from the endpoint. Lee et al teaches establishing a communication path and requesting a response to indicate that the path

Art Unit: 2112

setup is complete from the endpoint. It would have been obvious to a person of ordinary skill in the art to check for connectivity because this would have prevented lost communication by communicating over a failed path.

In regards to claim 30: Clark et al teaches determining a configuration comprising the device connectivity against the connectivity capacity of the point-to-point array (step 122).

7. Claim 21-23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al PN 3,725,864 in view of Kennedy et al PN 3,618,031.

In regards to claim 21: Clark et al teaches the point-to-point communication array as described above. Clark et al does not teach including a memory controller. Kennedy teaches a memory controller. It would have been obvious to a person of ordinary skill in the art at the time of the invention to include a memory controller in the system of Clark because this would have removed memory access control from the duties of the processor.

In regards to claim 22: both Clark et al and Kennedy teach a processor.

In regards to claim 23: Clark et al teaches the point-to-point connection array described above. Clark et al does not teach the devices being connected via connectors. MPEP 2144.04 V. C. to make separable is not patentably distinct.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al in view of Kennedy as applied to claim 21 above, and further in view of Lee et al PN 5,838,937.

In regards to claim 24: Clark et al teaches connecting to an endpoint device. Clark However does not teach an indication of a device connectivity from the endpoint. Lee et al

Art Unit: 2112

teaches establishing a communication path and requesting a response to indicate that the path setup is complete from the endpoint. It would have been obvious to a person of ordinary skill in the art to check for connectivity because this would have prevented lost communication by communicating over a failed path.

Allowable Subject Matter

9. Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

While the examiner could find many references that taught mechanically disconnecting devices from a system in response to a signal from the system, the examiner could find no motivation to modify Clark in such a manner.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul R. Myers whose telephone number is 703 305 9656. The examiner can normally be reached on Mon-Thur 6:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 703 305 4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2112

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRM
May 25, 2004



PAUL R. MYERS
PRIMARY EXAMINER